

OBJECTIVE: To describe persistence patterns in the use of statin therapy in a U.S. managed care population. **METHODS:** Three years of pharmacy and eligibility claims data from a managed care health plan with over two million members were utilized. Patients with at least one paid statin prescription claim in 2002 were identified. Those with continuous eligibility for six-month pre- and two-year post-index statin prescription and no statin claims in a six-month washout period were included. Patients with statin prescriptions filled at mail order pharmacies were excluded. Individuals were followed for 2 years and proportion of days covered (PDC) was calculated at 6, 12, 18, and 24 months to assess medication persistence. Days supplied for overlapping refills and last censored fill were adjusted to account for changes in statin therapy, early refill, and days supplied beyond the study period. **RESULTS:** A total of 14,047 patients met the study criteria. Twenty percent were greater than 65 years of age, 56% were male, 20.5% had at least one diabetes-related prescription, 63.5% had atorvastatin as index drug, and median age was 55. Mean PDC at 6, 12, 18, and 24 months were 0.63, 0.54, 0.49, and 0.47 respectively. At 6 months, only 42.1% of the study population remained adherent with their statin therapy, with PDC of at least 80%. By 24-months, only 26% were adherent. Patients taking diabetes related medications had higher prevalence of adherence than their non-diabetic counterparts after 6 months and this trend continued for all subsequent time intervals over two years ($p < 0.002$). **CONCLUSIONS:** Adherence rate of statin therapy remains suboptimal in this managed care population. Programs to maintain patients on statin therapy are essential to improve health outcomes and reduce drug wastage costs due to therapy non-compliance.

PCV51

OUTPATIENT DISCONTINUATION AND RESTARTING OF POST-MYOCARDIAL INFARCTION BETA-BLOCKER THERAPY

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OBJECTIVE: To estimate the one-year cumulative incidence of discontinuation of post-MI beta-blocker therapy after hospital discharge and the one-year cumulative incidence of restarting therapy following discontinuation. **METHODS:** We conducted a retrospective, population-based, inception cohort study among all enrollees ($n = 1334$) of Group Health Cooperative (GHC, a health maintenance organization) aged 30–79 years who survived a first hospitalized MI during 1986–1996 (mean follow up 1.4 years) and were discharged from the hospital on beta-blocker therapy. Using the GHC computerized pharmacy database, we calculated the duration of therapy by assuming subjects were on average 80% compliant with each beta-blocker prescription fill. We considered subjects to have discontinued therapy on the 60th consecutive day they were without medication and to have restarted therapy on the first day they obtained a prescription fill following discontinuation. In sensitivity analyses, we varied when we considered subjects to have discontinued therapy (i.e., on the 30th and the 90th consecutive day without medication). We estimated the cumulative incidence using failure time analyses. **RESULTS:** By one year post-discharge, 511 subjects discontinued therapy; the cumulative incidence of discontinuation was 39.0% (95% CI: 36.3, 41.6). The cumulative incidence increased to 50.7% (95% CI: 47.9, 53.3) and decreased to 33.4% (95% CI: 30.9, 36.0) when our discontinuation definition required 30 and 90 days without medication, respectively. By one year post-discontinuation, the cumulative incidence of restarting was 42.7% (95% CI: 39.1, 46.2). The cumulative incidence of restarting increased to 52.9% (95% CI: 49.6, 56.1) and decreased to 32.0% (95% CI: 28.4, 35.6) when our discontinu-

ation definition required 30 and 90 days without medication, respectively. **CONCLUSIONS:** Our results indicate that patients are likely to restart post-MI beta-blocker therapy after having discontinued it. Studies considering only time to first discontinuation may be oversimplifying the long-term utilization patterns of therapy by misclassifying patients who subsequently restart.

PCV52

MEDICATION ADHERENCE: PREDICTORS AND IMPACT ON HOSPITALIZATION RISK

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OBJECTIVES: The objectives of this study were to investigate factors associated with adherence to medications for diabetes and hyperlipidemia, and to assess the impact of adherence on hospitalization risk. **METHODS:** Administrative claims and cash prescriptions data from Wolters Kluwer Health's IHR database were utilized. This extensive database provides longitudinal prescription history on about 157 million patients, prescription and physician services' history on about 35 million, and prescription, physician services' and hospitalization history on about 6 million patients. Adult patients initiating therapy for either condition between July 2003 and June 2004 and having claims activity in the 12 months period prior to and following the index prescription were identified. A Medication Possession Ratio $\geq 80\%$ was considered to be indicative of adherence. Hospitalization risk was defined as the probability of being admitted to a hospital in post-index period. Logistic regression was employed to identify predictors of adherence including: age, gender, payer type, charlson index, chronic disease score, presence of disease conditions and pill burden. Relationship between hospitalization risk and adherence was also modeled using logistic regression after adjusting for the same covariates described previously. **RESULTS:** About 48.4% of the 116,607 diabetes patients and 38.5% of the 285,853 hyperlipidemia patients were adherent. Predictors of improved adherence in both disease groups were male gender, being a Medicaid beneficiary, a higher chronic disease score and lower pill burden. Comorbid diseases including AMI, CAD, CHF, stroke and hyperlipidemia were associated with higher adherence in the diabetes group. For both disease conditions, hospitalization risk was significantly higher in non-adherent patients [Diabetes OR: 1.47 ($p < 0.0001$), Hyperlipidemia OR: 1.24 ($p < 0.0001$)]. **CONCLUSIONS:** Adherence to therapy is suboptimal for diabetes and hyperlipidemia, two chronic diseases that are major drivers of health care spending. Furthermore, non-adherent patients faced a significantly higher risk of hospitalization compared to adherent patients.

PCV53

STATIN NONCOMPLIANCE AFTER CHD HOSPITALIZATION AND SUBSEQUENT HOSPITALIZATION AMONG NEW STATIN USERS

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OBJECTIVES: Examine the relationship of statin noncompliance to subsequent hospitalization among new statin users after coronary heart disease (CHD) hospitalization. **METHODS:** Medstat Marketscan 1999–2002 databases including inpatient, outpatient and pharmacy claims were utilized for this study. The first statin prescription fill date within six months of CHD hospitalization was identified as the index date. The sample consisted of adults who had no statin use during the year prior to the CHD hospitalization and had at least 2-years continuous